Evita 4
Technical Service Bulletin # 37 A

Re:　　　　　　**New software version 4.00, new hardware and software options**

Update:　　　　　October 30, 2001

Reference Doc:　　N/A

Reason:　　　　　The following product improvements are available:
- New baseline software version 4.00 (update)

The following options require installation of SW 4.n:
- Software option SW 4.n plus
- Software option mask ventilation, NIV
- Hardware option Nurse Call (Multi Function PCB)

The following hardware options require installation of SW 4.n and hardware option Nurse Call (Multi Function PCB):
- Hardware option Evita Remote
- Hardware kit 2nd ambient pressure sensor

Solution:　　　　These are the most important changes for the operator if the device is updated/upgraded with:

Software version 4.n (update):
- Entering the humidifier type used:
  "Heated (active) humidifier" or "HME/filter" (artificial nose) for a more accurate measurement of volume parameters.
- Apnea ventilation On/Off now selectable as a start-up configuration.
- Extended range for the delay time "T $_{Apnea}$", now adjustable in the range of 5 to 60 seconds (was 15 to 60 seconds).
- Breath rate adjustable down to 0 for smooth weaning in PCV+ and SIMV.
- Additional ventilation mode "PCV+ $_{Assist}$" for pressure controlled, assisted ventilation.
- Choice of patient mode "prev. patient" for using previously configured settings in effect before the ventilator was switched off.
- Leak compensation On/Off
- Extended log entries, Evita 4 now marks alarms that were active but not displayed with a star (*) in the log.

- Monitoring of obstructed tube with new warning message "Tube obstruction? !!!".
- Reduction of gas consumption in standby: After 3 minutes in Standby the control flow of 3.5 L/min and the bleed flow of 0.08 L/min is switched off by deactivating valve Y1.3. This is an improvement especially for transport systems with battery and gas cylinders, because the batteries can be charged in Standby, without a slow discharge of the cylinders.
- AutoFlow: After disconnection ("Airway pressure low" alarm) or a detected tube obstruction AutoFlow begins with a test stroke.

Software option SW 4.n plus (upgrade):
- Additional weaning parameters:
  RSB *Rapid Shallow Breathing* (RSB= f_{spont}/V_T),
  NIF *Negative Inspiratory Force* measures the maximum inspiratory force of a patient during expiration hold (up to 15s) after an expiration, and
  VT P.S.: Volume, that has been applied in one pressure support stroke.
- It is possible to output the values RSB, VT P.S. and NIF via Medibus. You can configure these measured values in the parameter field. RSB and VT_{ASB} can be displayed as a trend.
- External flow source:
  Evita 4 determines the contribution of external flow (e.g. during external nebulization) and avoids flow measurement inop alarms.
- Extended use of loop display:
  Loops may now be enlarged (zoomed), frozen, or permanently displayed in the upper portion of the screen.

Hardware option Nurse Call:
Connection for transmitting alarm signals to a central alarm station.

Hardware option Evita Remote:
This option consists of a remote pad with 3m (10ft) cable and a mounting plate. Routine functions such as Alarm silence, Insp. Hold, Exp. Hold, Start nebulizer, O_2 suction and Alarm Reset are accessible.

Hardware kit 2nd ambient pressure sensor:
This conversion kit improves operation under fast varying, atmospheric pressure.

Software option mask ventilation, NIV:
Software option to support application of non-invasive ventilation with a nasal or full face mask. In standby the user can choose between tube or mask application. All ventilation modes except ILV are possible during NIV. ATC and NIV exclude each other. This option comes with an additional Operating Instructions.

Devices affected: The software update with software version 4.00 is recommended for all Evita 4 units.

When: When requested by Customer, next Service Call or Preventive Maintenance.

Additional Info 1: All new updates/upgrades will require a clinical inservice or supply of SW 4 Trainer CDROM with P/N 4117256.

Additional Info 2: All Evita 4 with a factory installed software version 4.n will have a new standard composition:
- Hardware option CO_2 measurement is no longer standard, these units can be upgraded with the kit Capno plus P/N 84 13 780
- Software option ATC is standard
- Software option SW4.n plus is standard
- Hardware option DC with integrated back-up batteries is standard

Cost: The baseline Evita 4 SW 4.00 update kit P/N 84 14 467 including installation is free of charge for Customer in the USA and Canada.
Note for US Dräger TSRs: Use Job Type "Customer Accommodation".
All other options and their installation are covered by Customer.

Ordering Info: All part numbers for retrofitting on site:
- Evita 4 software version 4.00 update kit   P/N 84 14 467
- Kit SW 4.0 Plus Evita 4 *   P/N 84 14 469
- Kit mask ventilation, NIV *   P/N 84 14 474
- Kit Nurse Call / Multi Function PCB   P/N 84 14 476
- Connector for Nurse Call   P/N 18 46 248
- Kit Evita Remote   P/N 84 14 472
- Kit 2nd ambient pressure sensor   P/N 84 14 479

* Note for software options:
Software options require a 10-digit access code. This access code can only be generated if the option is ordered with following data of the Evita 4: Part number, S/N, and ID number.

Distribution: Dräger Service Personnel and Authorized Service Organizations for CCS products.

If you have any questions, please contact Technical Support by phone at 1-800-543-5047 or by fax at 1-215-721-5789

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